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| Form PTO-1449 INFORMATION DISCLOSURE LIST | Atty. Docket No.: 0899 Applicants: James Weifu Lee, et al. Filing Date | Title: Catalyst-Induced Growth of Carbon Nanotubes on Tips of Cantilevers and Nanowires Serial No. Group |
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JC997 U.S. PTO
09/873928
06/04/01

U. S. Patent Document

| *Examiner Initial | Doc. No. | Date | Name | Class | Subclass | Filing Date (if appropriate) |
|-------------------|----------|------|------|-------|----------|------------------------------|
| | (None) | | | | | |

OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)

- WL 1. Merkulov, V. I., D. H. Lowndes, Y. Y. Wei, G. Eres, and E. Voelkl (2000) "Patterned growth of individual and multiple vertically-aligned carbon nanotubes," *Appl. Phys. Lett.* **76**, 3555.
- WL 2. Dai, H., J. H. Hafner, A. G. Rinzler, D. T. Colbert, and R. E. Smalley, *Nature* **384**, 147 (1996).
- WL 3. Nishijima, H., S. Kamo, Seiji Akita, Y. Nakayama, K. I. Hohmura, S. H. Yoshimura, and K. Takeyasu, (1999) *Appl. Phys. Lett.* **74**, 4061.
- WL 4. Hafner, J. H., C. Li Cheung, and C. M. Lieber (1999) *Nature* **398**, 761.
- WL 5. Ren, Z. F., Z. P. Huang, J. W. Xu, J. H. Wang, P. Bush, M. P. Siegal, and P. N. Provencio (1998) *Science* **282**, 1105.
- WL 6. Baker, R. T. K. (1989) *Carbon* **27**, 315.
- WL 7. Chen, Y., D. T. Shaw, and L. Guo (2000) *Appl. Phys. Lett.* **76**, 2469.
- 8. Poncharal, P., Z. L. Wang, D. Ugarte, and W. A. de Heer (1999) "Electrostatic deflections and electromechanical resonances of carbon nanotubes," *Science* **283**:1512-1516.

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| EXAMINER <u>William Leader</u> | DATE CONSIDERED <u>11/2003</u> |
| *Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. | |

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| Application Number | 09/873,928 |
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| Filing Date | 06/04/2001 |
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| First Named Inventor | James Weifu Lee |
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Group Art Unit

Examiner Name

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| Attorney Docket Number | 0899 |
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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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**Examiner
Signature**

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

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| Application Number | 09/873,928 |
| Filing Date | 06/04/2001 |
| First Named Inventor | James W. Lee |
| Group Art Unit | 1741 |
| Examiner Name | |
| Attorney Docket Number | 0899 |

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials ¹ | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|--------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| WL | 2 | F.G.TARNTAIR ET AL, "High Current Density Field Emission from Arrays of Carbon Nanotubes & Diamond-Clad Si Tips," J. Vac.Sci.Technol.B, Vol. 18 (No. 3). | |
| WL | 3 | CHRIS BOWER ET AL, "Nucleation & Growth of Carbon Nanotubes by Microwave Plasma Chemical Vapor Deposition," Applied Physics Ltrs., Vol. 77 (No. 17). (October 23, 2000). | |
| WL | 4 | Z. F. REN ET AL, "Large Arrays of Well-Aligned Carbon Nanotubes," | |
| WL | 5 | SUK JAE CHUNG ET AL, "Novel Plasma Chemical Vapor Deposition Method of Carbon Nanotubes at Low Temperature for Field Emission Display Application," Diamond & Related Materials 10 (2001) , p. 248-253. | |
| WL | 6 | H. CUI ET AL, "Aligned Carbon Nanotubes via Microwave Plasma Enhanced Chemical Vapor Deposition," Mat.Res.Soc.Symp.Proc., | |
| WL | 7 | Y.C.CHOI ET AL, "Controlling the Diameter, Growth Rate and Density of Vertically Aligned Carbon Nanotubes Synthesized by Microwave Plasma-Enhanced Chemical Vapor Deposition," Appl. Physics Ltrs., Vol. 76 (No. 17), p. 2367-69, (April 24, 2000). | |
| WL | 8 | H. CUI ET AL, "Deposition of Aligned Bamboo-Like Carbon Nanotubes via Microwave Plasma Enhanced Chemical Vapor Deposition," Jl. of Applied Physics, Vol. 88 (No. 10), p. 6072-6074, (November 15, 2000). | |
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Signature

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Date

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